

Applic. No. 10/657,927
Amdt. dated December 17, 2004
Reply to Office action of September 17, 2004

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-12 remain in the application. Claims 1 and 2 have been amended. Claims 10-12 have been withdrawn from further consideration. The specification has been amended to correct a clerical error regarding an incorrect reference symbol.

In item 5 on page 2 of the Office action, claims 1 and 7-9 have been rejected as being fully anticipated by Etzer et al. (DE 43 03 746 A1) (hereinafter "Etzer") under 35 U.S.C. § 102.

Applicant respectfully believes that claim 7 should not be rejected, as it is dependent on allowable claim 3 and should therefore also be indicated as being allowable.

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. The claims are patentable for the reasons set forth below. Support for the changes is found on page 5, lines 3-7 and on page 8, lines 8-9 of the specification.

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Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

the separation chamber having a first flow connection for exchanging water between the upper tube part and the lower tube part.

The Etzer reference discloses that in order to seal the lance (2) in its interior, the lance (2) has a soldering bushing (13). The soldering bushing (13) can be constructed as a metal disk having bores, which receive detector cables (12) that are placed inside the lance (2) and which are sealed in the bores by soldering joints (7). Therefore, no impurities can emerge into the lower part of the lance (2), in particular impurities cannot emerge into the space (14) between a support tube (15) of the lance (2) and the detector cables (12). The soldering bushing (13) is disposed in the area of the collar (6). Thereby an accumulation of impurities is prevented in the part of the lance (2) that extends below and beyond the reactor pressure vessel (1). Therefore, a raised dose rate does not occur by radioactive deposits (column 3, lines 46-61).

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The reference does not show the separation chamber having a first flow connection for exchanging water between the upper tube part and the lower tube part, as recited in claim 1 of the instant application. Etzer discloses that the soldering joints (7) are sealed in the bores. Etzer does not disclose any flow of water because the soldering joints (7) in the bores are sealed. Therefore, Etzer does not take into account temperature fluctuations in a reactor and the water flow associated therewith. This is contrary to the invention of the instant application as claimed, in which the separation chamber has a first flow connection for exchanging water between the upper tube part and the lower tube part.

Furthermore, the Etzer reference does not disclose an exchange of water as claimed in the instant application. The instant application solves the following problem. Temperature fluctuations cause water to be forced into the interior of the pressure vessel out of the guide tube when the water is heated. Conversely, when the temperature decreases, water is sucked out of the reactor pressure vessel into the guide tube. As large temperature variations occur, in particular when shutting down the nuclear power station, the present invention guarantees that it is possible for water to enter the guide tube from the pressure vessel and the first flow connection allows unloaded water to be exchanged between the upper tube

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part and the lower tube part without any problems by allowing radioactive particles to settle in the separation chamber (page 2, line 12 to page 3, line 3 and page 5, lines 1-7).

Since claim 1 is believed to be allowable, dependent claims 7, 8, and 9 are believed to be allowable as well.

It is appreciatively noted from item 6 on page 3 of the Office action that claims 2-6 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The claims have not been amended as indicated by the Examiner, as the claims are believed to be patentable in their existing form.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-12 are solicited.

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In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner & Greenberg P.A., No. 12-1099.

Respectfully submitted,



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